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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/098,577	03/14/2002	Jean-Francois Viens	6620	3227

7590 12/14/2004
Att: Matthew E. Connors
Samuels, Gauthier & Stevens, LLP
Suite 3300
225 Franklin Street
Boston, MA 02110

EXAMINER

WONG, ERIC K

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/098,577

Applicant(s)

VIENS, JEAN-FRANCOIS

Examiner

Eric Wong

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to ^{amendment} communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, ⁴15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, ⁴15 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to prior art Kewitsch et al. filed 9/23/04 have been fully considered but they are not persuasive. Applicant argues that Kewitsch et al. only discloses an asymmetric coupler that functions as a grating assisted coupler. Examiner respectfully notes that it appears the structure claimed does not specifically require a symmetric coupler, nor is there mention of the type of coupler being used. Furthermore, Kewitsch et al. discloses a structure that covers at least 8 optical channels and is configurable to different wavelengths.

2. Applicant's arguments with respect to prior art Damask et al. filed 9/23/04 have been fully considered but they are not persuasive. Applicant argues that Damask et al. fails to disclose an optical coupler receiving an input signal and providing an output signal and grating waveguides with superstructure and superperiod having a photonic band-gap covering at least 4 optical channels. Examiner respectfully notes that it appears the structure claimed does not specifically require a symmetric coupler, nor is there mention of the type of coupler being used. Furthermore, Damask et al. discloses variables and equations that appear to allow for the adjustment and setting of specific band-gaps depending on the type of input wavelength used.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2, 5-7 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Number 5,805,751 to Kewitsch et al.

As to claims 1, 2, 5-7, Kewitsch et al. discloses in the abstract and figures 1 and 15:

A large bandwidth add-drop filter for a planar waveguide device comprising:

- At least one directional coupler receiving an input signal and providing an output signal (Figure 15); and
- At least two grating waveguides having a photonic bandgap covering at least 8 optical channels (Figure 16).

As to claims 14 and 15, Kewitsch et al. discloses in column 15, lines 3-6 a method of tuning the coupler using heat.

- and 13*
5. Claims 1-2, 4-11, and 12-13_A are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Number 5,915,051 to Damask et al.

Damask et al. discloses in the abstract, column 21, line 27, table I, and column 33, line 38:

An add-drop filter for a planar slab waveguide device comprising:

- At least one directional coupler receiving an input signal and providing an output signal; and
- At least two grating waveguides having a superstructure grating strength (greater than $0.013\mu\text{m}^{-1}$).

As to claims 12-13, different characteristics of the grating periods are shown in Table I, and an equation for the waveguide coupling strength as a function of the waveguide separation is given in equation 50.

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As to claim 18, there is a time delay (column 11, line 2).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Wong whose telephone number is 571-272-2363. The examiner can normally be reached on Monday through Friday, 830AM - 430PM.

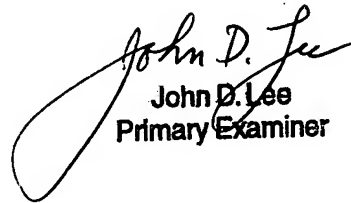
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EW



John D. Lee
Primary Examiner